
A18 D94 Warmsworth Quarry

Site information

Site name: Warmsworth Quarry

Site key: D94

Grid reference: [SE 535 004] (accurate)

Site type: active quarries and pits

Local authority: Doncaster Metropolitan Borough Council, South Yorkshire

Site dimensions: 15 m x 6 x 10 m

Site owner: WBB Minerals

Conservation status: Regionally Important Geological Site **Date:** 16/9/97

Field surveyor: Scott Engering **Date:** 16/2/07

Stratigraphy and rock types

Time unit: Permian **Rock unit:** Sprotbrough Member, Cadeby Formation, Zechstein Group

Rock type: Dolostone **Details:** Dolostone breccia

Site map

(Figure 90) — D94 Warmsworth Quarry

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Site description

An isolated stump comprising a breccia of angular and in places sub-rounded limestone generally less than 100 mm in size with an orange-brown sandy matrix. The south side contains lenses where there is a large proportion of sandy material and to the north side, there are two beds 300-400 mm thick that are essentially composed of cemented sand and form a sharp boundary with the underlying breccia but coarsen upwards into the overlying breccia.

According to the quarry manager the exposure is located in a position that was previously the site of a large mound of quarry waste and adjacent to the exposure, there is a remnant which is obviously man made. However, this exposure is very well cemented and has sheer vertical faces and has a well developed upper soil horizon. To the south, the access road to the quarry is flanked to the west by a rock face that is extremely fissured and further along the Don Gorge to the west at Nearcliff Woods, the limestone has been subjected to massive slumping and brecciation with very large fissures that are filled with similar material.

RIGS assessment of site value

Ratings: 1–2 very poor; 3–4 poor; 5–6 acceptable/useful; 7–8 quite good; 9–10 very good/excellent; N/A not applicable; D/K don't know

Access and safety

Aspect/Description/Rating

Road access & parking Accessible along road to working limestone quarry parking at site offices. Limited. Rating: 4

Safety of access Very busy working quarry so considered potentially hazardous. Rating: 4

Safety of exposure Adjacent to busy access road to quarry without pathways 4

Permission to visit Private Ownership WBB Minerals. Rating: 5

Current condition Very good. Rating: 8

Current conflicting activities traffic to quarry and landfill site

Restricting conditions No collecting

Nature of exposure Large stubby pillar of dolostone breccia left as a remnant of past quarrying activities

Multiple exposures /prospect for trail With specific permission, potential to link with Warmsworth Park, Cadeby Cliff, Cedar Road Quarry and Hexthorpe Flatts as part of organised group visit

Notes This is a busy quarry and landfill site and particular care needs to be taken when visiting, over and above usual fieldwork precautions

Culture, heritage & economic

Aspect/Description/Rating

Historic, archaeological & literary associations None known. Rating: 0

Aesthetic landscape Working quarry environment 3 history of Earth Sciences None known. Rating: 0

Economic geology Production of pure dolostone suitable for the glass making industry. Aggregates and some building stone produced. Rating: 8

Notes Economically significant source of materials for glass industry

Education and science

Surface processes Deposit associated with gorge formation, rifting, slumping and cambering. Rating: 8

Geomorphology Not applicable. Rating: 0

Sedimentary Good example of brecciated dolomitic limestone with sandy beds. Rating: 8

Fossils Not applicable. Rating: 0

Igneous Not applicable. Rating: 0

Metamorphic Not applicable. Rating: 0

Tectonic: structural Associations with rifting, slumping and cambering in the Don Gorge and its relationship to the South Don fault. Rating: 8

Minerals . Rating: 0

Stratigraphy Rare occurrence of brecciated dolostone. Rating: 7

Notes Good field work site at advanced, graduate or adult level, for rarity value

Geodiversity value

Unusual occurrence of brecciated dolostone. Rating: 8

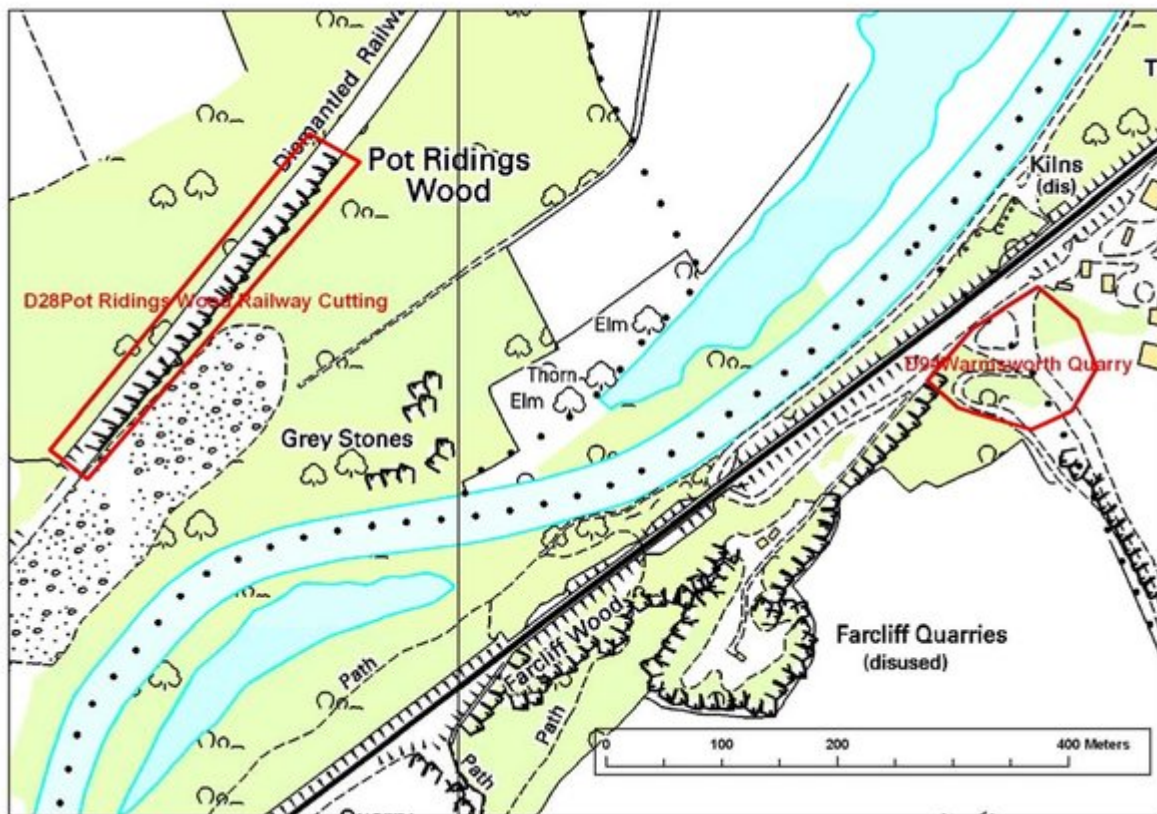
Site photographs D94 Warmsworth Quarry

(Figure 91) General view of north face of breccia stump. [SE 53458 00455].

(Figure 92) General view of south face of breccia stump. [SE 53457 00488].

(Figure 93) Detail of sandstone and limestone layers in south face of breccia stump. [SE 53457 00488].

(Figure 94) General view of quarry looking to the west. [SE 53900 00400].



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(Figure 91) General view of north face of breccia stump. [SE 53458 00455].



(Figure 92) General view of south face of breccia stump. [SE 53457 00488].



(Figure 93) Detail of sandstone and limestone layers in south face of breccia stump. [SE 53457 00488].



(Figure 94) General view of quarry looking to the west. [SE 53900 00400].